Eye on the sky

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Science on the Hill: Eye on the sky

by Spencer Johnson

Every night in a remote clearing called Fenton Hill high in the Jemez Mountains of central New Mexico, a bank of robotically controlled telescopes tilt their lenses to the sky for another round of observation through digital imaging. Los Alamos National Laboratory's Thinking Telescopes project is watching for celestial transients including high-power cosmic flashes called, and like all science, it can be messy work.

To keep the project clicking along, Los Alamos scientists routinely install equipment upgrades, maintain the site, and refine the sophisticated machine-learning computer programs that process those images and extract useful data from them. Each week the system amasses 100,000 digital images of the heavens, some of which are compromised by clouds, wind gusts, focus problems, and so on.

For a graduate student at the Lab taking a year's break between master's and Ph.D. studies, working with state-of-the-art autonomous telescopes that can make fundamental discoveries feels light years beyond the classroom.

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